Weekly Report

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1. CHI投稿项目-时序预测

学习了一下PyTorch的用法；测试了LSTM模型，在简单数据上效果不错。接下还测试各种不同的周期性数据、带扰动的、带其他规律的（比如递增）、以及实际数据。

2. RSATree项目

重构中。先将计算移动到后端（Node.js)，测试效率，如果还是很差的话开始用C重写。

Papaer Reading

2.1 pridictive VA

[1] T. Von Landesberger, S. Bremm, N. Andrienko, G. Andrienko, and M. Tekušová, "Visual analytics methods for categoric spatio-temporal data," IEEE Conf. Vis. Anal. Sci. Technol. 2012, VAST 2012 - Proc., pp. 183–192, 2012.

[2] L. Padua, H. Schulze, K. Matković, and C. Delrieux, "Interactive exploration of parameter space in data mining: Comprehending the predictive quality of large decision tree collections," Comput. Graph., vol. 41, no. 1, pp. 99–113, 2014.

[3] P. Chakraborty, M. Marwah, M. Arlitt, and N. Ramakrishnan, "Fine-grained photovoltaic output prediction using a Bayesian ensemble," Proc. Natl. Conf. Artif. Intell., vol. 1, no. January, pp. 274–280, 2012.

[4] Y. Lu, R. Garcia, B. Hansen, M. Gleicher, and R. Maciejewski, "The State-of-the-Art in Predictive Visual Analytics," Comput. Graph. Forum, vol. 36, no. 3, pp. 539–562, 2017.

[5] N. Andrienko and G. Andrienko, "A visual analytics framework for spatio-temporal analysis and modelling," Data Min. Knowl. Discov., vol. 27, no. 1, pp. 55–83, 2013.

[6] M. C. Hao et al., "A visual analytics approach for peak-preserving prediction of large seasonal time series," Comput. Graph. Forum, vol. 30, no. 3, pp. 691–700, 2011.

[7] J. Lu et al., "Recent progress and trends in predictive visual analytics," Front. Comput. Sci., vol. 11, no. August 2011, pp. 1–16, 2016.

2.2 time series

[1] M. C. Hao et al., “Visual exploration of frequent patterns in multivariate time series,” Inf. Vis., vol. 11, no. 1, pp. 71–83, 2012.

[2] P. Senin et al., “GrammarViz 2 . 0 : A Tool for Grammar-Based Pattern Discovery in Time Series,” no. 1218325, pp. 468–472, 2014.

计划-已完成

TASK	DESCRIPTION	NOTE
大黑书修订	初稿	可能需要进一步修订

计划-已完成

TASK	DESCRIPTION	SCHEDULE
大黑书修订	继续修改	
CHI的idea		下周继续讨论
专利（两篇）	完成(1/2)	

计划-中期

TASK	DESCRIPTION	SCHEDULE
RSATree代码重构	后端C++化	暂时可以开始一部分， 视CHI的idea构思进展而定
RSATree论文	修订后投TVCG	CHI之后开始
研究生课程PPT		9.1号前完成

计划-长期

TASK	DESCRIPTION	SCHEDULE
毕业论文	目前定位为可是设计方向	开始考虑一下整体构思

Works Progresses

TASK	PROGRESS	TODO	ISSUES	DATE
RSATree	修订投TVCG	整理代码		
RSATree专利		与律师沟通		下周
大黑书修订				
VisEvo		idea evaluation		
电子学报	已进入最后阶段			
ECharts论文	完成proof	等待最终发布		
分辨率自适应可视化		学习/咨询相关理论基础		